

Classical Insights

Global Investment Analysis Based on the Classical Economic Model

Classical Insights Morning Bullet Points June 26, 2006

This weekend we took a harder look at the relationship between gold and interest rates. Bottom line: *Extreme* Fed tightness correlates with a declining gold price, and *extreme* Fed looseness correlates with a rising gold price. The Fed is not at either extreme now, and thus we remain neutral on gold. This stance might change, though, if the Fed raised another 50-100 bps and other indicators did not move.

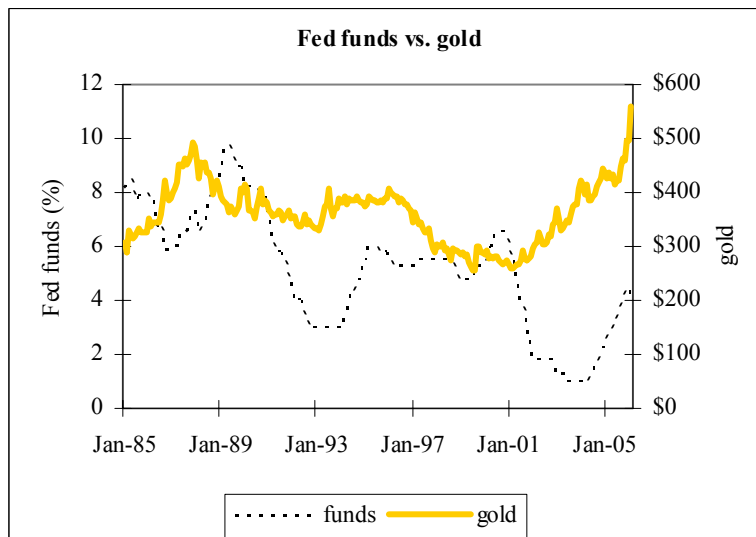
We charted the following relationships:

- Fed funds vs. gold;
- Real Fed funds (i.e. Fed funds - CPI) vs. gold;
- Real discount rate (i.e. discount rate - CPI) vs. gold;
- Yield curve slope vs. gold.

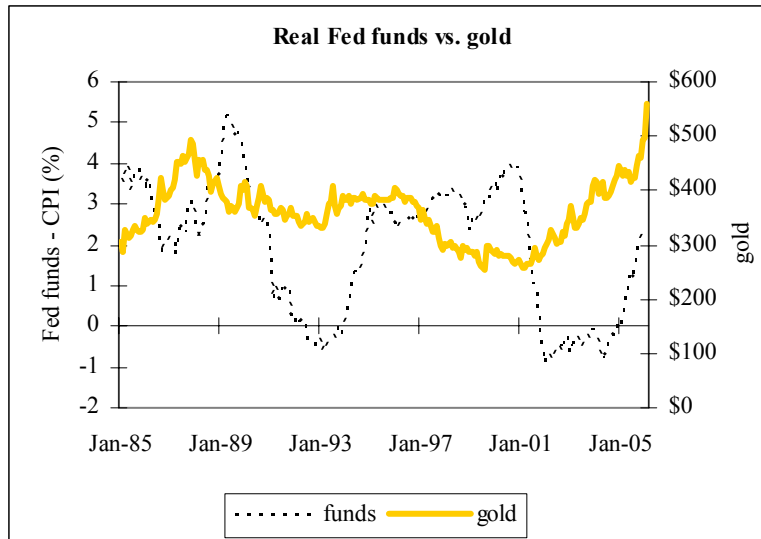
The one thing they all show is that an extremely inverted yield curve (100+ bps of inversion) or very-high real interest rates (300 bps gap between funds & CPI) *almost never correlate with a rising gold price*. Meanwhile, negative real interest rates almost always correlate with rising gold. (Source for all charts: Bloomberg.)

Some charts:

1) Fed funds (nominal) vs. gold. This chart doesn't say anything. There are no obvious correlations.



2) Real Fed funds vs. gold. This chart is more useful. It shows one obvious correlation: A real Fed funds above 3% correlates with flat-to-falling gold. This combination occurred from June 1988 to December 1989, and again from August 1997 to January 2001:

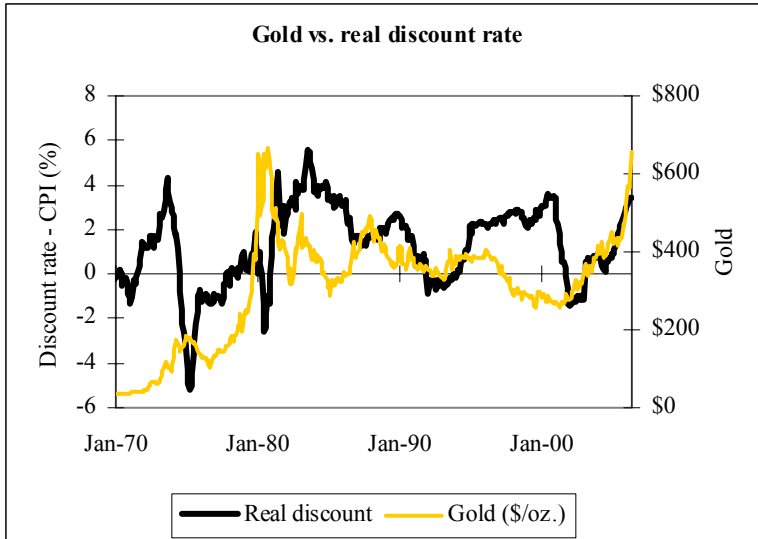


Note: The one period where the relationship didn't work was February 1985 to April 1986, when real funds was above 3% but gold still rose 8%, to \$345. One possible explanation is that real rates had been actively declining since August, 1983, and didn't bottom until April 1997. (Before 1985, one has to reference the discount rate.) Also, the nominal figures for CPI and Fed funds were generally higher back then, so a 3% real rate wasn't as high then as it would be now in relation to nominal figures.

Is the opposite true? Does a negative real funds rate correlate to rising gold? It certainly did from October 2001 to January 2005 (gold up 51%). The other example we have stretches from June, 1992 to January 1994. During that period gold rose about 13%. Two samples isn't a very big sample size, but both instances do show a correlation between a negative real funds rate and a rising gold price.

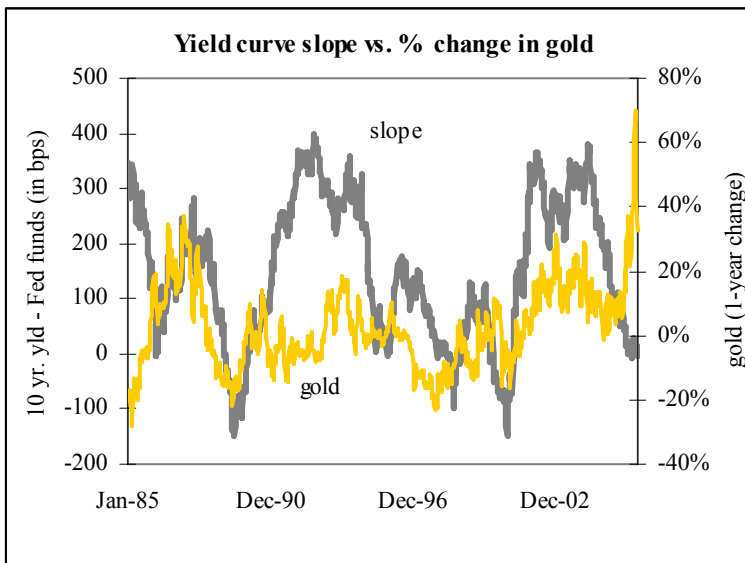
What about all the times in between, when real funds was between 0% and 3%? There are no obvious correlations with gold.

3) Real discount rate vs. gold. This chart suggests that negative real discount rates correlate with higher gold prices. This is an interesting series because it includes the dollar implosion of the 1970s and early 1980s. In the early '70s, the Fed did not appear to be paying attention to gold. It kept the real discount rate below 3% even as gold tripled, to \$100/oz. in May 1973. The discount rate was raised to a real level of 4.3% in August 1973 – but then was allowed to fall to (what appears to be) an all-time low of -5% in April 1975. (At this time, the discount rate was 6.25% but CPI was 11.3%.)

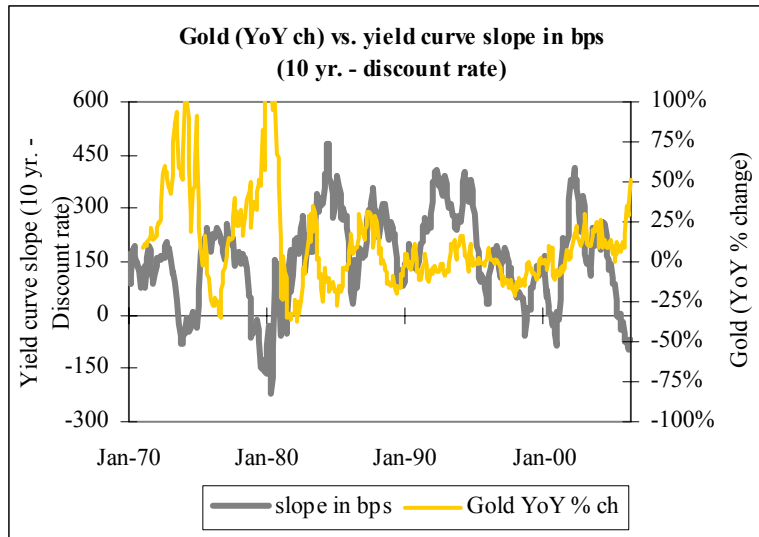


Interestingly, gold initially fell (declining from April, 1975, to August, 1976). From there, though, it went almost straight up, hitting \$800/oz. in late 1980 against a backdrop of zero-ish real discount rates. Gold began to fall seriously in late 1981, when the real discount rate was pushed to 4%. (The real rate eventually went as high as 5.6%, in June 1983.) During this period of high real discount rates, gold eventually fell back to \$300-\$400/oz., in early 1984.

4) Yield-curve slope vs. gold. This chart calculates slope by subtracting the Fed funds rate from the 10-year Treasury yield. It shows that gold never seems to rise into a sharply negative-sloping yield-curve. Right now, the slope is slightly positive at 24 bps.



The following chart is slightly different. It calculates slope by taking the 10-year Treasury yield and subtracting the *discount* rate. Since the discount rate is now 5.75%, this chart shows a negative slope of 51 bps. *That's in the zone that correlates with no increase in the gold price* (though it's not negative enough to say it correlates with a lower gold price).



Taken together, the two slope charts suggest that if the Fed raised another 50-100 bps there would be a material increase in the odds that gold would start to fall (provided the 10-year yield didn't rise in the meantime, of course).

Further thoughts:

5) Viewed as a whole, the five charts above offer *no guidance* on the question of where gold is going next. The real funds rate is not high enough to force gold down (based on historical precedent). Meanwhile, the slope of the yield curve is still positive if one calculates slope using the Fed funds rate, which is probably the best method now. The slope (calculated based on the funds rate) would probably need to be, say, 50 bps negative before one could say with confidence, "this degree of negative slope correlates in a statistically significant way with a lower gold price going forward." Thus, we remain neutral on gold.

6) Some supply-siders hold the view that gold is rising *because* the Fed is raising the funds rate (the opposite of what these charts suggest). The concept is that the Fed, by raising the cost of money, is reducing demand for it, thus creating a supply/demand imbalance leading to a weaker dollar and higher gold. While it's true that the recent gold rally has occurred against a backdrop of a rising Fed funds rate, the weight of the historical data suggest that gold is rising because the Fed is behind the curve – i.e. it hasn't raised the funds rate *enough*.

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